

Linking Goals and Asset Management to Resource Allocation

Goal Areas Included in new PD 14	Aspirational Target (PD 14, 2008 version)	Performance Target (PD 14, 2008 version)	Existing Methods to Determine Needs	Existing Project Selection Criteria	MAP-21 Considerations
Safety	1.00 fatalities per 100 million miles of vehicle travel	1.00 fatalities per 100 million miles of vehicle travel	Nationwide AASHTO recommendation adopted in PD 14 in 2006 for 1.00 fatalities per 100 million miles of vehicle travel. No current method for monetizing need.	No link between Safety and Asset Management. For the Hazard Elimination System (HES), projects are screened based on their potential to reduce crashes. Screened HES projects then are ranked according to their benefit cost ratios in the same CDOT Region. For Rail-Highway Crossing Safety Improvements, a weighted hazard index is under review to identify sites statewide in need of improvements. The weighted hazard index will take the place of accident histories used to identify sites for application of funds.	MAP-21 will dictate reporting of fatalities, fatality rates, serious injuries, and serious injury rates. April 2014 is the anticipated date for rules implementation. MAP-21 rules may define “serious injuries”. CDOT currently posts five-year moving averages for fatalities at YourCDOTDollar.com. AASHTO recommends using five-year moving averages for numbers and rates of injuries and fatalities.
Infrastructure Condition <ul style="list-style-type: none">BridgeHighwayTransit	Bridge: 95% of on system deck area in good or fair condition using federally-approved sufficiency rating. Pavement: 60% good/fair condition as determined by remaining service life. Transit: No target.	Bridge: Changes annually based on expected level of performance at TC-established budget. Pavement: Fiscally constrained objective established in PD 14 as 60%, but actual target changes annually based on expected level of performance at TC-established budget. Transit: No Target.	Bridge: The National Bridge Inventory standards established by the Federal Highway Administration have been used to inventory and classify the condition of the major vehicular bridges. Need calculated based on \$/square foot to replace poor deck area times total deck area in poor condition. Pavement: Using current pavement model driven by engineering determination of remaining service life, needs reported in dollars need to maintain current condition and to rise toward commission goal and objective. Transit: None.	Bridge: Below a sufficiency rating of 50, bridge becomes poor and ownership is eventually transferred to Bridge Enterprise. Pavement: Model provides regional recommendations. Regions must adhere to 70% of model recommendations. Transit: Application process uses the same criteria for the same types of projects (i.e., replacement rolling stock, facilities or equipment) regardless of funding source (FASTER or FTA).	Bridge: MAP-21 requires states to maintain minimum thresholds for NHS bridges (no more than 10% of total NHS bridge deck area may be on structurally deficient bridges). MAP-21 does not mandate use of sufficiency rating. Pavement: MAP-21 requires states to maintain minimum thresholds for Interstate pavement condition. MAP-21 rules likely to require reporting of International Roughness Index, currently one of five factors in CDOT’s remaining service life. MAP-21 requires states to maintain minimum thresholds for Interstate pavement condition. AASHTO recommends a shift over time from IRI to structural health index. CDOT is currently studying a Drivability Index that would apply Least Cost Analysis to certain tiers of the system. *Transit: Performance Measures & Objectives are being developed.
System Performance	Maintain an average of no greater than 22 minutes of delay per traveler in congested corridors	TC objective is to reduce the growth rate in minutes of delay per traveler in congested corridors by 1.5 percent below the forecast for 2018 of 18.8 minutes of delay, but actual target changes annually based on expected level of performance at TC-established budget.	In preparation for 2035 Plan, Mobility section calculated incremental need based on investment required to lift capacity in lane miles to a level that alleviated congestion, with congestion defined by 0.85 volume/capacity ratio. This number has not been recalculated.	Highways: Unknown Transit: Applications for expansion rolling stock or facilities projects selected based on demonstrated need or readiness and special considerations.	MAP-21 requires USDOT to develop performance measures for freight movement on the Interstate system. CDOT tiering and Managed Lanes Policy fit with MAP-21 system performance goal. AASHTO has recommended MAP-21 measures for delay (total travel hour spent in congestion) and reliability (Planning Time Index at the 80% confidence level).

Linking Goals and Asset Management to Resource Allocation

Goal Areas Included in new PD 14	Aspirational Target (PD 14, 2008 version)	Performance Target (PD 14, 2008 version)	Existing Methods to Determine Needs	Existing Project Selection Criteria	MAP-21 Considerations
Maintenance	<p>Overall Maintenance: Achieve a B maintenance level of service grade for system quality measures</p> <p>Snow & Ice Removal: Achieve an A maintenance level of service grade for Snow and Ice Control</p>	<p>Overall Maintenance: Changes annually based on expected level of performance at TC-established budget.</p> <p>Snow & Ice: Changes annually based on expected level of performance at TC-established budget.</p>	Overall Maintenance and Snow and Ice: Relies exclusively on the Maintenance Levels of Service Program.	Budget surpluses in one maintenance program area can be shifted to other program areas to improve performance.	
Project Delivery	<p>Only qualitative goals in current PD 14: Deliver high quality programs, projects and services in an effective and efficient manner</p> <ul style="list-style-type: none">o Deliver all programs and projects on time and within budgeto Accelerate completion of the remaining strategic projectso Increase investment in strategic projects	<p>None stated in PD 14. Chief Engineer Objectives target 80% of total regional allocation to be encumbered or expended by fiscal year end.</p>	None.		<p>MAP-21 does not direct USDOT to establish measures for project delivery and prohibits USDOT from establishing additional performance measures.</p> <p>CDOT tracks Design On Time, Construction On Time, Construction On Budget, and many other project and program delivery measures.</p>